

Application No. 10/737,050
Amendment dated January 6, 2006
Reply to Office Action dated October 6, 2005

REMARKS

Claims 1-20 are currently pending in the application.

The Examiner objected to claims 3-6, 8, 9, 14-16, 18, and 19 for being dependent upon a rejected base claim. The Examiner stated claims 3-6, 14-16, and 18-19 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The Examiner rejected claims 1, 12, and 13 under 35 USC § 102(b) as being anticipated by Dent (USPN 6,226,271). The Examiner rejected claims 2, 10, 11, and 17 under 35 USC § 103(a) as being unpatentable over Dent in view of Leffel (USPN 2005/0057303). The Examiner rejected claims 7 and 20 under 35 USC § 103(a) as being unpatentable over Dent in view of Abercrombie et al. (USPN 6,275,920; hereinafter "Abercrombie"). The objection and rejections are respectfully traversed and Applicant requests reconsideration of the application.

102(b) Rejection

In order for a reference to anticipate an invention, each and every element of the claimed invention must be found in a single reference. The "identical invention must be shown in as complete detail as is contained in the ... claim. The elements must be arranged as required by the claim..." MPEP Section 2131. Applicant respectfully submits that Dent does not anticipate Applicant's claimed invention because Dent does not teach every element of the claimed invention.

Independent claim 1 recites "a processing apparatus receiving the plurality of power data values and converting the plurality of power data values to a plurality of floating-point numbers" and "wherein the processing apparatus stores counts of the plurality of floating-point numbers using each floating-point number as an address

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for a corresponding histogram bin in the memory." The Examiner argues Dent teaches these aspects of the claimed invention in analog to digital converter (17) and in the descriptions in column 6, line 39 to column 7, line 19 and column 8, lines 21-23.

Applicant submits Dent does not disclose converting the data values to floating-point numbers. Applicant also submits Dent does not teach using each floating-point number as an address for a histogram bin. Dent teaches using the number of bits the AtoD converter (17) operates with (e.g., 8-bit converter) to determine the number of memory locations or bins. The memory addresses *start at a value equal to the lowest signal strength that can be measured and increase sequentially in fixed amounts (e.g. 0.5 dB), with each address considered to be equal to a corresponding signal strength* (see col. 7, lines 6-10). Dent further states "[e]ach time the AtoD converter samples the signal strength measurement, an address (memory location) *corresponding to the AtoD converter's output (the digitized signal strength measurement value)* is incremented by one to record the occurrence of that particular signal strength measurement value" (col. 7, lines 13-18). Thus, Dent uses the actual signal strength measurement values, starting with the lowest signal strength measurement that can be measured, as addresses for the histogram bins. Nothing found in Dent teaches converting the signal strength measurements to floating-point numbers (i.e., numbers with a mantissa and an exponent) and then using the floating-point numbers as addresses for histogram bins.

Dent also does not generate the histogram in order to derive a CCDF curve. Dent clearly states the method of reducing the value counts "continues until all bin contents have been processed and a *single value remains*" (col. 3, lines 39-40). This *single value* represents the accumulated signal strength of the signal strength measurements (col. 3, lines 53-55). Dent is not deriving a CCDF curve. A CCDF curve is illustrated in figures 2 and 7 in Applicant's application. A CCDF curve indicates percentages of time a signal spends at or above an average power level.

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Therefore, for at least the following reasons, Applicant submits Dent does not anticipate independent claims 1 and 12.

"Claims in dependent form shall be construed to incorporate by reference all the limitations of the claim incorporated by reference into the dependent claim." 37 CFR 1.75. Claim 13 depends from and includes all the limitations of claims 12. For at least the reasons discussed above, Dent does not anticipate independent claim 12. Accordingly, dependent claim 13 is also not anticipated by Dent.

103(a) Rejections

The Manual of Patent Examining Procedure (MPEP) states the following in Section 2142:

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Applicant respectfully submits claims 2, 7, 10-11, 17, and 20 are not rendered obvious by the combinations of Dent and Leffel and Dent and Abercrombie because the references do not meet any of the three basic criteria for obviousness. The discussion below, however, will be limited to the third criterion.

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103(a) Rejection – Dent and Leffel

Applicant respectfully submits the combination of Dent and Leffel does not teach or suggest “converting the plurality of power data values to a plurality of floating-point numbers” and “using each floating-point number as an address for a corresponding histogram bin in the memory.” As discussed earlier, Dent does not convert the signal strength measurement values into floating-point numbers and then use those floating-point numbers as addresses. Instead, Dent uses the actual signal strength measurement values, starting with the lowest signal strength measurement that can be measured, as addresses for the histogram bins.

Leffel also does not teach or suggest “converting the plurality of power data values to a plurality of floating-point numbers” and “using each floating-point number as an address for a corresponding histogram bin in the memory.” Consequently, the combination of Dent and Leffel fails to teach or suggest “converting the plurality of power data values to a plurality of floating-point numbers” and “using each floating-point number as an address for a corresponding histogram bin in the memory.” Applicant therefore submits independent claims 1 and 12 are not rendered obvious by the combination of Dent and Leffel.

Claims 2 and 10-11 depend from independent claim 1 while claim 17 depends from independent claim 12. “If an independent claim is not rendered obvious by prior art, then any claim depending from the independent claim is not obvious.” In re Fine, 5 USPQ2d 1596 (Fed. Cir. 1988) (see also M.P.E.P. § 2143.03). Based on the discussion above, independent claims 1 and 12 are not obvious in view of Dent and Leffel. Therefore, claims 2, 10-11, and 17 are also not obvious in view of Dent and Leffel.

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103(a) Rejection – Dent and Abercrombie

Applicant respectfully submits the combination of Dent and Abercrombie does not teach or suggest “converting the plurality of power data values to a plurality of floating-point numbers” and “using each floating-point number as an address for a corresponding histogram bin in the memory.” As discussed earlier, Dent does not convert the signal strength measurement values into floating-point numbers and then use those floating-point numbers as addresses. Instead, Dent uses the actual signal strength measurement values, starting with the lowest signal strength measurement that can be measured, as addresses for the histogram bins.

Abercrombie also does not teach or suggest “converting the plurality of power data values to a plurality of floating-point numbers” and “using each floating-point number as an address for a corresponding histogram bin in the memory.” Consequently, the combination of Dent and Abercrombie fails to teach or suggest “converting the plurality of power data values to a plurality of floating-point numbers” and “using each floating-point number as an address for a corresponding histogram bin in the memory.” Applicant therefore submits independent claims 1 and 12 are not rendered obvious by the combination of Dent and Abercrombie.

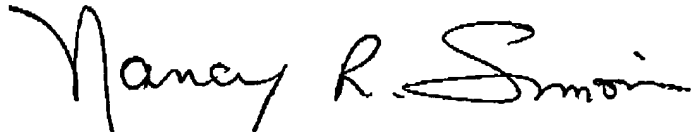
Claim 7 depends from independent claim 1 while claim 20 depends from independent claim 12. “If an independent claim is not rendered obvious by prior art, then any claim depending from the independent claim is not obvious.” In re Fine, 5 USPQ2d 1596 (Fed. Cir. 1988) (see also M.P.E.P. § 2143.03). Based on the discussion above, independent claims 1 and 12 are not obvious in view of Dent and Abercrombie. Therefore, claims 7 and 20 are also not obvious in view of Dent and Abercrombie.

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In light of the discussion above, Applicant believes that all claims currently remaining in the application are allowable over the prior art, and respectfully requests allowance of such claims.

Respectfully submitted,

Date: January 6, 2006

A handwritten signature in black ink, reading "Nancy R. Simon". The signature is fluid and cursive, with the first letters of each name being capitalized and prominent.

Nancy R. Simon

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